

**Abstract of th Disclosure**

A system for initiating and maintaining a real time audio or video media session between two clients, at least one of which has a private network IP address and is supported by a NAT firewall, comprises a proxy server serving each client and a relay server. The first proxy server may receive an invite message from a caller client to initiate a media session with a callee client. The invite message will identify the IP address and media port number of the caller client. The proxy server queries the relay server to obtain a port number of the relay server that may be used for relaying the media session between the caller client and the callee client. The proxy server will replace the IP address and port number of the caller client with the IP address and port number of the relay server in the invite message before forwarding to the callee client. When the callee client generates a response message that includes the IP address and media port number of the callee client, the proxy server will replace the IP address and media port number of the callee client in the response message before forwarding the response message to the caller client.